

Tungsten Thoriated

1 PRODUCT AND SUPPLIER IDENTIFICATION

Product Name: Tungsten-Thoriated - wire, rod
Other: Tungsten-Th, Thoriated Tungsten, Tungsten Thoria

Supplier: Eagle Alloys Corporation
178 West Park Court
Talbott, TN 37877

Telephone: 423-586-8738
Fax: 423-586-7456
Email: sales@eaglealloys.com

24 HOUR EMERGENCY ASSISTANCE: CHEMTREC 800-424-9300

Recommended Uses: Scientific Research

2 HAZARDS IDENTIFICATION

GHS Classification (29 CFR 1910.1200): Carcinogenicity, category 1.

GHS Label Elements:



Signal Word: Danger

Hazard Statements: H350 May cause cancer.

Precautionary Statements: P260 Do not breath dust or fume, P280 Wear protective gloves/protective clothing/eye protection/face protection, P284 Wear respiratory protection.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient:	CAS#:	%:	EC#:
Tungsten	7440-33-7	98-99	231-143-9
Thorium Dioxide	1314-20-1	1-2	215-225-1

4 FIRST AID MEASURES

General Measures: This product in the form it is sold is not considered to constitute a physical hazard or a health hazard. Subsequent operations such as grinding, melting or welding may produce potentially hazardous dust or fumes which can be inhaled or come in contact with the skin or eyes.

INHALATION: Remove to fresh air, keep warm and quiet, give oxygen if breathing is difficult. Seek medical attention.

INGESTION: Rinse mouth with water. Do not induce vomiting. Seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person.

SKIN: Remove contaminated clothing, brush material off skin, wash affected area with soap and water. Seek medical attention if symptoms persist.

EYES: Flush eyes with lukewarm water, including under upper and lower eyelids, for at least 15 minutes. Seek medical attention if symptoms persist.

Tungsten Thoriated SAFETY DATA SHEET

Most Important Symptoms/Effects, Acute and Delayed: May cause irritation. See section 11 for more information.

Indication of Immediate Medical Attention and Special Treatment: No other relevant information available.

5 FIREFIGHTING MEASURES

Extinguishing Media: Use suitable extinguishing media for surrounding material and type of fire.

Unsuitable Extinguishing Media: No information available.

Specific Hazards Arising from the Material: May emit toxic metal oxide fumes under fire conditions.

Special Protective Equipment and Precautions for Firefighters: Full face, self-contained breathing apparatus and full protective clothing when necessary.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Wear appropriate respiratory and protective equipment specified in section 8. Avoid dust formation. Avoid contact with skin and eyes. Avoid breathing dust or fume.

Methods and Materials for Containment and Cleaning Up: Sweep or scoop up. Place in a closed container for further handling and disposal.

Environmental Precautions: Do not allow to enter drains or to be released to the environment.

7 HANDLING AND STORAGE

Precautions for Safe Handling: Avoid breathing dust or fumes. Provide adequate ventilation if dusts or fumes are created. See section 8 for information on personal protection equipment.

Conditions for Safe Storage: Store in a sealed container. Store in a cool, dry area. See section 10 for more information on incompatible materials.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:	OSHA/PEL:	ACGIH/TLV:
Tungsten	5 mg/m ³	5 mg/m ³
Thorium Dioxide	No exposure limit established	No exposure limit established

Engineering Controls: Ensure adequate ventilation to maintain exposures below occupational limits. Whenever possible the use of local exhaust ventilation or other engineering controls is the preferred method of controlling exposure to airborne dust and fume to meet established occupational exposure limits. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Respiratory Protection: For processes that produce dust or fume, use a NIOSH approved dust, mist respirator. All appropriate requirements set forth in OSHA 29CFR 1910.134 should be met.

Eye Protection: Safety glasses

Skin Protection: Wear impermeable gloves, protective work clothing as necessary.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Wire, rod

Color: Silver gray metallic

Odor: Odorless

Odor Threshold: Not determined

pH: N/A

Melting Point: >3400 °C

Boiling Point: 5660 °C

Flash Point: N/A

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Evaporation Rate:	N/A
Flammability:	No data
Upper Flammable Limit:	No data
Lower Flammable Limit:	No data
Vapor Pressure:	No data
Vapor Density:	N/A
Relative Density (Specific Gravity):	~19 g/cc
Solubility in H₂O:	Insoluble
Partition Coefficient (n-octanol/water):	Not determined
Autoignition Temperature:	No data
Decomposition Temperature:	No data
Viscosity:	N/A

10 STABILITY AND REACTIVITY

Reactivity: No data

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: No data

Conditions to Avoid: No data

Incompatible Materials: Avoid contact of dust with strong oxidizers, acids and fluorine gas.

Hazardous Decomposition Products: Metal oxide fume.

11 TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, skin, eyes. Product as shipped does not present an inhalation hazard; however subsequent operations may create dusts or fumes which could be inhaled.

Symptoms of Exposure: Fumes/dusts may cause irritation.

Acute and Chronic Effects:

Tungsten: No data

Thorium Dioxide: Thorium dioxide is a naturally occurring, slightly radioactive element with a long half-life. It emits mainly alpha particles, but occasionally beta and gamma radiation is emitted. Alpha particles cannot penetrate skin or even paper and as such, its primary hazard lies in inhalation or ingestion. Normal handling of this material is not expected to result in any significant external radiation exposure. Considerable experience in refining and use of thorium has not revealed any adverse effects from industrial exposure. Thorium Dioxide has been identified as a carcinogen by the NTP and IARC. Evidence for its ability to cause cancer has come solely from its internal medical use.

Acute Toxicity: No data

Carcinogenicity: **Thorium Dioxide:** **NTP:** K - Known to be carcinogenic **IARC:** 2B - possibly carcinogenic to humans

To the best of our knowledge the chemical, physical and toxicological characteristics of the substance are not fully known.

12 ECOLOGICAL INFORMATION

Ecotoxicity: No data

Persistence and Degradability: No data

Bioaccumulative Potential: No data

Mobility in Soil: No data

Other Adverse Effects: No further relevant information available.

13 DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Product: Dispose of in accordance with Federal, State and Local regulations.

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Packaging: Dispose of in accordance with Federal, State and Local regulations.

14 TRANSPORT INFORMATION

DOT/ADR/IATA/IMDG Regulations: Not regulated

UN Number: N/A

UN Proper Shipping Name: N/A

Transport Hazard Class: N/A

Packing Group: N/A

Marine Pollutant: No

Special Precautions: N/A

15 REGULATORY INFORMATION

TSCA Listed: All components are listed.

Regulation (EC) No 1272/2008 (CLP): Carcinogenicity, category 1.

Canada WHMIS Classification (CPR, SOR/88-66): Class D, Division 2, Subdivision A - Very toxic material causing other toxic effects.

HMIS Ratings: Health: * (Chronic) **Flammability:** 0 **Reactivity:** 0

NFPA Ratings: Health: 2 **Flammability:** 0 **Reactivity:** 0

Chemical Safety Assessment: A chemical safety assessment has not been carried out.

16 OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Eagle Alloys Corporation shall not be held liable for any damages resulting from handling or from contact with the above product.

Prepared by: Eagle Alloys Corporation

Revised/Reviewed: November 2015

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